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EDITORIAL

The Wrong Attitude

In travelling up and down the country, and in constant interviews with business men of all kinds, one gets the impression that perhaps one of the many reasons for the fact that business is still far from satisfactory is that the wrong attitude seems to prevail. True, there are many reasons why business men should feel somewhat saddened, but when one looks at the progress made in this country in a few short years and realizes that perhaps only the surface has been scratched so far as business opportunities are concerned, it is difficult to find a real reason for the defeatist attitude adopted by so many people. Defeatism never did a good job on anything, anywhere, and there is little excuse for the lack of long term confidence exhibited by people who ought to know better, and probably do.

That seems to be the root of the whole trouble, a lack of long term confidence. To cite an example which comes close to home: In less than two years, the members of this Society have been almost doubled, the various Chapters have taken a new lease on life, and instead of three chapters, as there were less than two years ago, there are now eleven, and others in the making. This has not been accomplished by any defeatist attitude, but by hard work, coupled with a firm belief in the future, not only of our Society, but of the country itself.

It is undoubtedly true that conditions in Europe have had a most unsettling effect on business on this side of the Atlantic and will probably continue to have, in a lesser degree, as the war clouds fade away, but it does seem to this writer that, if we have faith in ourselves, in our business and in our country, we should make even more progress in the next twenty than in the last twenty years.

Uniformity

During the past two months or so, this writer has been particularly struck by the lack of uniformity on Cost and Accounting methods by those engaged in the profession, and it would seems that there is ample opportunity for something to be done to correct this in some measure. This lack of uniformity is based, not so much on methods as on rather fundamental principles, and that makes the situation even more serious.

Candidly, one can easily conjure the thought that perhaps, as a Society, we can do much to correct this failure to agree, and this is something which should be taken up in Chapter meetings next season.

Too much uniformity, it is true, tends to take away initiative, and is,

in some measure, even worse than the present situation, but there are undoubtedly many cases in which some measure of uniformity could be supplied and maintained with benefit. It does not do to become too stereotyped, but there are undoubtedly many principles especially in similar industries which those engaged in those industries would do well to get together on and try to find a common basis. How some Trade Associations can compare even in the remotest degree matters of cost is beyond the comprehension of this writer, but it is a fact that in many such organizations no two businesses think alike on many cost problems.

Across the Secretary's Desk

There seems to be some difference of opinion among the members generally, regarding the Reference Library, and also the Literature Received listed monthly in "Cost and Management," and we would like to make this point clear. Articles from the Reference Library and also the literature listed monthly in "Cost and Management" are available on loan to members on request. These articles are sent to members post paid when requested, and the loan period is thirty days. Members are asked merely to prepay postage on the articles when returned. This should clear up the point, and it is to be hoped that members will be increased advantage of this service.

As an evidence of the increased interest generally in the affairs of the Society, I recently received a letter from an Edmonton member, stating that on a recent visit to Calgary he had interested several friends in the Society, and gave the name of one who would be interested in organizing a Chapter in that centre. It will be remembered that a survey was made last fall, both in Calgary and Regina, and indications were favourable at that time for such a formation. However, it is expected that this year will see Chapters in both these centres, but the point I wish to emphasize is that one of our newer members has shown such a definite interest as to take the trouble he has. I can assure him that his efforts are much appreciated, and will be taken full advantage of. Plans are going ahead for the Annual Meeting to be held in Hamilton on Friday, June 2nd, and it promises to be a red letter day in the history of the Society. For some years now the Annual Meeting has not attracted many members, but this year it will be different, and present indications point to the largest attendance in many years, if not in the history of the Society. For one thing, a prominent speaker will be heard at the luncheon meeting and, following the Annual Meeting, there will not only be the usual golf tournament but, for those who prefer it, a Plant Visit to one of the local plants. There will, of course, be the usual dinner in the evening following the gold and the plant visit, and the meeting of the new directors to elect officers, etc., but there will not be a guest speaker at the dinner as time will not permit. This type of Annual Meeting may be the forerunner

of something even better in future years, and it is expected that there will be a large attendance, not only of local members, but also from such centres as Toronto, Niagara Peninsula, Kitchener and even London and Windsor, as well as the usual delegates from even further aaeld. Will you be one of these members in attendance?

In many ways, the year just closed has been one of the most successful, and matters to be discussed at the Annual Meeting may make next year even more successful. Each and every member is an integral part of the Society, and your presence at the meeting is earnestly desired. I hope sincerely that you will endeavour to be in attendance. Incidently, although meetings in the various Chapters are now just about through for the summer, now is a good time to figure what type of meetings you would like for next season. Think it over, and mention your suggestions to your Chapter secretary. He will be more than pleased to hear from you.

R. D.

Chapter Notes

Hamilton.

The closing meeting of the Hamilton Chapter was held on May 3rd, when Rev. G. W. Tebbs of Burlington lectured and showed some very fine naturally coloured films of the Sante Fe Trail and the Rockies from Vancouver to Lake Louise and Banff.

This meeting was altogether different from the usual run of Chapter meetings, but it was a really excellent one, and the talk by Mr. Tebbs and his most excellent films were very much appreciated.

Officers were elected at this meeting, with the following results:

Chairman, A. J. Ballentyne, Firestone Tire & Rubber Co. Ltd.; Vice-Chairman, W. L. McMahon, Hamilton Cotton Co. Ltd.; Secretary-Treasurer, C. H. Wynn, United Carr Fastener Co. Ltd. Directors—W. H. Furneaux, Aerovox of Canada Ltd.; W. J. Eplett, Scarfe & Co., Ltd.; O. H. Menzel, Hamilton Drug Co. Ltd.; W. Lloyd-Edwards, C.P.A., John Duff & Sons; F. Landeg, Steel Co. of Canada Ltd., and J. W. Hamilton, Hamilton Hydro Electric System.

Representatives on Dominion Board—A. G. Howey, Mercury Mills Ltd., and W. G. Smitton, Dominion Foundries and Steel Ltd.

Kitchener.

The closing meeting of the Kitchener Chapter took the form of a "True or False" night on May 11th, and was very much enjoyed. At the close of the questions it wsa found that two teams were tied on points and it was decided that the money prize be turned back into Chapter funds, after the boys had regaled themselves with refreshments—of the soft variety.

The election of officers resulted as follows:

Chairman, J. Henderson, Newlands & Co., Ltd., Galt; Vice-Chairman, D. C. Seebach, B. F. Goodrich Rubber Co. Ltd.; Secretary-Treasurer, G. R. Good, The Kaufman Rubber Co. Ltd. Directors—V. M. Buchanan, W. E. Woelfle Shoe Co. Ltd.; W. I. Jardine, Clare Bros. Co., Ltd.; S. E. Nicholson, C.A., Sheldon's Ltd.; E. C. Codling, Beatty Bros. Ltd., Fergus; H. D. Huber, Canadian Blower & Forge Co. Ltd.

Representative on Dominion Board—C. R. Kidner, C.A., Savage Shoe Co. Ltd.

Niagara Peninsula.

The final meeting of the Niagara Chapter, held at the Welland Club, Welland, on May 17th, was a pronounced success. The attendance was not so large as it might have been, but the fact remains that no meeting this season has brought the boys together as did this meeting. In the absence of P. B. Pratt, who was scheduled to speak on "Mechanized Accounting," and who was prevented through a death in his family, the Secretary-Manager of the Society came down and staged a "True or False" night, which was very enjoyable indeed. After a hard struggle and much merriment, the side captained by Chairman Spry won out from that captained by Vice-Chairman McLaren. Following this, the election of officers and directors took place and the "big three," Chairman Spry, Vice-Chairman McLaren and Secretary-Treasurer Louis Palmer, were again elected and the directors were elected as follows:

C. R. Howard, Port Colborne, Niagara Falls; A. G. Ross, Merriton; F. A. N. Haultain, Welland; J. E. Thorpe, St. Catharines; A. G. Holden, J. R. Leach, F. C. Douglas.

London.

The April meeting of the London Chapter, held at the Y.M.C.A. on April 19th, took the form of a "True or False" night, and was much enjoyed. There was a good attendance and the meeting was preceded by a dinner—something new for the London Chapter. There was a real battle for prizt money, and first money was eventually lifted by Roy Craig, with W. C. Benson, C.A., second and C. Harley third. There was a lot of good-natured banter among the members concerning some of the questions and, altogether, it was a most enjoyable evening. The next and closing meeting of the Chapter will be hed on May 25th, when the election of officers and directors will take place.

Windsor.

The April meeting of the Windsor Chapter saw an old member of the Society in the person of Mr. J. E. Carruthers of the Ford Motor Co. of Canada Limited as guest speaker, and his talk on "Certificates for Canadian Conttnt Value" was exceedingly good. This talk is being publishde in "Cost and Management" and should be a valuable addition to information on this rather vexing question. Many questions were fired at Mr. Carruthers at the close. The meeting was also a most enthusiastic one, and hopes are high for a real banner season next year. The closing meeting will be held on May 25th, when the election of officers and directors will take place.

Literature Received

Standard Costs in an Engineering Industry.

The Australian Accountant. February.

A very complete and comprehensive article, describing a structure designed for a special branch of the Engineering Industry. Deals mainly with the Agricultural Implement Industry.

Factory Organization and Management.

A very fine article from the viewpoint of a Production Control Manager.

Budgetary Control.

The Accountant Student. March.

A somewhat short but very interesting article on a subject about which much has been written, but of which the average accountant never tires of reading.

What is the Function and Control of the Cost Accountant?

Chartered Accountant, in Australia. March.

An interesting article by an old friend, Gordon Lowe; one which Cost Accountants generally would do well to study.

The Arithmetic of the Grain Trading Account.

Canadian Chartered Accountant. May.

An article of txceptional interest, especially to those engaged in the grain trade.

Cost Finding in Transportation.

N. A. C. A. April 15th.

Control and Use of Costs in Motor Truck Operation.

N. A. C. A. April 15th.

Two exceptionally complete articles, on a subject which is coming more and more to the fore, if one can judge by the great interest displayed in this subject recently by various members of the Society.

The Duties and Responsibilities of a Bank Auditor.

N. A. C. A. May 1st.

Internal Auditing of Banks.

N. A. C. A. May 15th.

Two exceptionally complete articles, of interest mainly to those engaged in work of this kind.

The Forum

To The Editor:
Dear Sir—

We have a problem which perhaps some member may be able to help us with.

Some departments in our plant frequently do work for other departments, and what we would like to know is the procedure followed in other businesses in handling the overhead in such instances.

Any suggestions along these lines will be most gratefully received.

Yours very truly,

COMPANY "O. O."

If any member has any suggestions to make in this connection, they will be passed on to the enquiring company without any names being revealed.—Editor.

ANNUAL MEETING

ARRANGEMENTS ARE ALL COMPLETED FOR THE ANNUAL MEETING AT THE WENTWORTH ARMS HOTEL, HAMILTON, ON FRIDAY, JUNE 2nd, AND IT IS HOPED THAT THIS WILL BE THE LARGEST ATTENDED ANNUAL MEETING FOR MANY YEARS BACK.

THERE WILL BE A LUNCHEON MEETING AT 12 O'CLOCK SHARP, FOLLOWED BY AN ADDRESS BY THE GUEST SPEAKER, MR. W. H. FUNSTON, JR., PRESIDENT OF THE FIRESTONE TIRE AND RUBBER CO. LIMITED, AND THEN THE ANNUAL MEETING.

IT IS HOPED TO COMPLETE THE PROCEEDINGS AT THE ANNUAL MEETING IN TIME FOR A GOLF GAME AT THE GLENDALE GOLF CLUB AT 2.30 P.M., AND FOR THOSE WHO DO NOT PLAY GOLF A PLANT VISIT HAS BEEN ARRANGED TO THE PLANT OF THE MERCURY MILLS LIMITED, WHICH SHOULD PROVE DECIDEDLY INTERESTING.

AT 6.30 P.M. A DINNER WILL BE HELD AT THE GLENDALE GOLF CLUB, AT WHICH THE PRIZES WILL BE PRESENTED AND THE NEW DIRECTORS WILL MEET FOLLOWING THE DINNER. ALL TIMES STATED ARE DAYLIGHT SAVING TIME.

New Members

Montreal Chapter.

Edgar H. Gibson, Burroughs Adding Machine Co. Ltd., Montreal.

Hamilton Chapter.

H. R. Nurrish, C.G.A., Cockshutt Plow Co. Ltd., Brantford.

Niagara Peninsula Chapter.

T. Edmondson, C.G.A., Packard Electric Co. Ltd., St. Catharines.

A. R. Adams, McKinnon Industries Ltd., St. Catharines.

J. Dowling, Welland Vale Mfg. Co. Ltd., St. Catharines.

Kitchener Chapter.

I. L. Wismer, Cluett, Peabody & Co. of Canada Ltd., Kitchener.

E. C. Codling, Beatty Bros. Ltd., Fergus.

J. Thompson, B. F. Goodrich Co. Ltd., Kitchener.

Windsor Chapter.

A. Whitley, A. Whitley & Co., Windsor.

General Considerations of a Standard Cost Procedure

By

MR. W. M. FANNING,

Chas. E. Bedeaux Co., Inc., New York.

An Address Before

Kitchener Chapter, March 16th, 1939

Mr. Chairman and members of the Society: I am glad to note that your Society is made up of both Cost Accountants and Industrial Engineers. I believe that a great deal of good can come from such a pooling of interests.

It has certainly been my general observation that Accountants can improve their technique and enhance their value in industry by absorbing some of the Engineer's viewpoint and knowledge of factory operations. Likewise, Engineers may contribute more practically to technological progress if they have a working knowledge of costs.

Management to-day is confronted with a multitude of problems. Higher costs of labor, material, and overhead; severely fluctuating volume; keener competition, just to name a few. An accurate knowledge and control of costs is essential if the individual concern is going to remain in business.

Perhaps we can agree that a good cost system may be characterized as a useful tool of Management and should satisfy the following demands:

1. Accurate means of burden allocation to products.

2. Adequate control of factory costs at varying production levels.
3. Means of decentralizing responsibility for overhead costs.
4. Means of segregating created burden.
5. Accurate determination of tooling and other costs not a part of regular production expense.
6. Improved inventory control.
7. Aid in determining selling prices.

In any plant manufacturing products produced by varying processes and on various types of equipment, there is no such thing as a reliable standard blanket burden figure. The use of blanket burden figures in such plants invariably means that all products carry either more or less than their correct share of the total burden, and when this is the case there is always the danger of losing business to competition or accepting it at an actual loss through lack of knowledge of true costs.

To obviate such a possibility the plant must be subdivided into logical departments. For cost purposes, the ideal productive department is one with a single function and a single type of equipment. In practice, however, this degree of refinement would almost invariably result in a prohibitive number of departments and it is necessary, therefore, to compromise considerably with the ideal. It may be necessary to set up subsidiary burden centers within productive departments containing widely different types or sizes of equipment.

It has long been recognized that it is both illogical and economically unsound to attempt to make selling prices cover actual burden at subnormal production levels. It is equally unwise to include in selling prices only sufficient burden to cover actual overhead expenses in times of abnormal production. The former will turn business away because of uneconomically high prices and, as a result, accentuate plant idleness and bring about further reduction in profit or increase in loss. The latter fails to provide surplus funds for use in weathering periods of depression. It is, therefore, obvious that a normal or standard production level must be determined in order that a reasonable basis for standard burden rates may be available.

Normal production level should be determined for each productive factory department individually. The method of determination of normal can only be decided upon through study of the characteristics of the individual plant's business cycle. Whatever the mechanics of the method of determining normal production, the final answer should represent capacity to produce and sell under average conditions and over a period of time including years of subnormal, normal, and abnormal production.

The first step, therefore, is to measure each operation in terms of some common denominator. In our set-up we use a Work Unit, which may be defined as the amount of work that a normal man, working at a normal rate, under normal conditions, will put forth in one minute. This unit is superior to direct labor cost, direct labor hours, and machine

hours as a basis for standard overhead distribution because it is a more nearly constant and fixed value.

Direct labor cost may show violent fluctuations, as it has in many plants during the past five years, and at the same time overhead costs may change little or not at all. Furthermore, improvement in labor utilization will naturally reduce direct labor cost but seldom have any noticeable effect on overhead costs. If overhead is based on direct labor cost such a move will appear to reduce overhead. Both direct labor hours and machine hours are unreliable because variation in rate of productivity will undoubtedly occur and thus cause fluctuation in overhead per piece produced.

The Work Unit does not vary except with technological change in product or process. Degree of labor utilization, variation in rate of productivity, and changes in wage level have no effect whatever on the number of Units per article produced, thus making it easy to charge the in-process accounts with a standard fixed amount of overhead for each item of production.

It is, of course, necessary to have a departmentalization of assets in the form of a complete plant ledger listing under each department descriptions of individual assets, replacement cost, remaining useful life, annual depreciation provision, and unrecovered cost.

Although assets are listed departmentally in the plant ledger and depreciation is charged directly to departmental expense accounts, the replacement values and corresponding depreciation reserves may be carried in general accounts for all assets of a given classification in the entire plant.

A simpler, though less accurate and consequently less desirable procedure for departmentalizing depreciation expense, is to make rough estimates of the replacement value of assets in the various departments and split the total composite depreciation taken for the plant as a whole, among the departments on the basis of such estimates.

In the determination of Standard Departmental Burden Costs we use past history as a basis for forecasting future burden at the normal level of production. We obtain curves by plotting production in Work Units against directly chargeable burden cost in dollars per month on graph paper and then read these curves at the point of normal production. To the figure so obtained add standard pro rated charges and the sum represents standard burden cost at normal production level, which, when divided by the number of Work Units normally produced per month gives the standard burden rate per Work Unit produced in the department.

Non-productive factory departments of a general service nature are handled as pro-rated charges to other departments. There is no definite rule for distributing departments of this nature except that bases selected should as nearly as possible split the cost of such departments among other departments exactly as if it were practical to accurately meter the amount of service given to each benefitting department. Among some of the bases used are:

GENERAL CONSIDERATIONS OF A STANDARD COST PROCEDURE

Normal Work Units Produced.
Connected Horsepower.
Floor Space Occupied.
Number of Wage-earning Employees, etc.

It should be noted that non-productive departments must carry their proper share of other non-productive departments in order that non-productive as well as productive departments may all stand on their own feet.

Adequate control of factory cost at varying production levels is obtained by the establishment of expense budgets for the various items or groups of items that go to make up burden. The budgets should be predicated upon a predetermined standard relationship between expense and production.

Although the terms "Standard Cost" and "Budget," when applied exclusively to overhead, are closely related, nevertheless there is a distinction between the two which should be clearly understood. Standard overhead cost per unit of production is obtained by dividing total standard overhead cost at normal production by Work Units produced. The cost per Unit so obtained then becomes a constant factor and actual Work Units produced each month are multiplied by it to determine total standard overhead for the month regardless of production level. This in spite of the fact that we know, even with the best possible management, that overhead cost per Unit will increase with reduced production and likewise decrease with expansion of production. However, the value of our product does not change simply because it is made in lesser or greater quantities, and it is therefore logical to maintain our standard overhead cost at a constant figure per unit for purposes of establishing selling prices and evaluating inventories. On the other hand, the fixed standard overhead cost per Unit is practically valueless as an instrument of cost control unless production remains at exactly normal level, a condition that will almost never prevail.

The budget, on the other hand, takes actual production level into consideration. It should be noted that when, and only when, actual and normal production are identical the budget and standard cost overhead will likewise be identical. Thus, in contrast to "Standard Overhead," "Budgeted Overhead" can always be compared to actual overhead regardless of production level, and so serves as a tool of cost control in the hands of management.

The budget is a necessary part of any adequate cost plan because it lifts the plan to a plane somewhat above that of a purely accounting proposition, and rounds it out by supplying information that is vital to adequate cost control. Without budgets it is always necessary to mentally adjust the picture presented by a factory cost statement, or a profit and loss statement, with respect to production level, in making comparisons with previous similar statements. This cannot be done with any accuracy and at best leaves the busy executive with only a hazy idea as to the true comparison, and none whatever regarding what is a reasonable standard

of performance with all things being given their proper consideration. On the other hand, if budgeted costs are provided, a glance is sufficient to ascertain whether unearned burden is the result of low volume, poor control, or a combination of the two.

There is, of course, no way, nor is there any desirability, of relieving executives and managers of full ultimate responsibility for costs occurring within their jurisdictions. On the other hand, it is definitely an advantage to those in the management group, and an aid to them in the cost control phase of their work, to be able to delegate cost responsibility to subordinate members of the operating staff.

This objective is attained through the preparation of complete monthly cost statements for all departments. They show for each department all items of expense in detail and corresponding budgeted costs. By scanning the statements the manager can readily discover which departments, if any, are over-running their expense budgets and thus be well informed as to which foremen need bolstering. Without departmentalized cost statements the only course open is to urge all foremen as a group to keep expenses down and to hope that in future each will do his best to do so.

Just as the monthly cost statement makes it possible to pin responsibility on the foreman whose department is at fault, the detail on it likewise points out to the foreman where his trouble lies and indicates his logical course of action toward eliminating excesses.

It should not be assumed that the only purpose served by departmental cost statements is to pin down responsibility. Furnishing complete information on all departmental costs to a foreman puts him in the position of a manager and thus serves to make him cost conscious and to appeal to his pride of accomplishment. These latter effects are frequently found to be fully as effective factors as is the responsibility angle.

Created burden, frequently designated at variable burden, is that part of the total burden that varies in approximately direct proportion to production. A knowledge of the true created burden, as distinguished from total or fixed burden, is essential if management is to be able to make intelligent decisions in certain situations.

The first situation deals with establishment of minimum selling prices when business is scarce and competition strong. Although in the long run total burden must be covered in selling prices if the company is to survive, there may occasionally be cases when it will be advantageous to accept additional business at a price that will not cover total burden but will cover slightly more than created burden. Any additional business taken at a price greater than created cost will involve no actual out-of-pocket loss and will either reduce the loss or increase the profit for the company as a whole.

The other sphere of usefulness of created burden is in the formulation of decisions whether to manufacture or purchase certain parts. If the created cost of manufacturing the part is less than the price for which it can be purchased, then it is obviously wise to manufacture it, regardless of what the total standard cost of manufacture may be.

GENERAL CONSIDERATIONS OF A STANDARD COST PROCEDURE

In certain cases, particularly with new articles or processes where insufficient time is available for working out and perfecting standard procedure, it may be desirable to operate on a job cost rather than a standard cost basis. Means should be provided to keep the cost of such work clearly separated from regular production falling under the standard cost plan. All work falling into this classification is segregated and carried to the appropriate accounts by means of a system of work orders. Actual hours spent and actual material used are recorded on the work order as each job progresses and standard overhead for the department doing the work is added on the basis of hours worked. For the purpose of charging out a true share of total departmental cost to jobs done on work orders, standard overhead figures per chargeable hour should be developed in non-productive departments as well as in all productive departments.

The essence of accurate control of inventories is the use of standard costs in pricing both charges and credits to inventory accounts. Where this is any variance from standard cost, and there almost invariably is, and the variance is permitted to be charged to inventory, then the average cost of inventory per unit of production becomes a weighted composite of a number of different costs which is constantly changing with each charge or credit to inventory. Obviously the clerical effort necessary to accurately compute a running weighted average cost of the balance in inventory, with thousands of articles involved, would be prohibitive. In fact it may be said that in such cases any close agreement between book and physical inventories will be largely the result of good fortune and a series of compensating coincidences.

For the control of raw stock inventory, raw stock is costed into inventory at predetermined standard costs per pound, foot, or whatever unit it is purchased in. Any difference between standard and actual cost is thrown into a special purchase price variance account which is in turn charged off to Profit and Loss as current expense. As raw stock is used for manufacturing it is costed out of raw stock inventory at the same standard cost per pound, or other unit at which it was originally charged to the inventory account. The standard cost of material removed from raw stock inventory is then charged to a material expense account. Thus, raw stock is both added to and deducted from inventory at the same standard cost per unit, and fluctuations from standard purchase price have been disposed of without any effect whatever on the standard value of the inventory, through the use of the purchase price variance account.

Similarly material goes into in-process inventory at a standard cost per piece and comes out at the same figure per piece, and it is not necessary to give any weight whatever to fluctuating actual costs, since they have been disposed of through a material manufacturing variance account, and do not affect the inventory.

Both actual and standard direct labor are accumulated currently by the Payroll Department and summarized on an Analysis Sheet. The Analysis Sheet likewise contains a breakdown of all labor wastes and losses according to their nature. All actual direct labor is charged to expense

as it is paid or accrued. Standard direct labor as obtained from the Analysis Sheet is credited to expense and charged to the work in process account. Any balance remaining in the expense account is then thrown to direct labor manufacturing variance. Deductions from in-process inventory are made from the Delivery to Stores Tickets at the standard direct labor cost per piece. As in preceding cases, any difference between actual and standard costs is handled through a variance account and has no effect on the inventory.

Standard overhead, being a direct function of production, is determined entirely by the number of Work Units produced. Work Units produced in each department are obtained from the Analysis Sheet and, when multiplied by the standard burden rate per unit, give standard total burden for each department. Actual overhead is, of course, charged to current expense as it develops. Standard overhead is charged monthly to in-process inventory and credited to expense, any balance in expense being carried to the unearned burden account. Deductions from in-process inventory are made from the Delivery to Stores Tickets at the standard overhead cost per piece. Thus, step by step we are adding overhead to inventory, until, when the part is completed, we shall have added its total standard overhead. We then remove that same total standard overhead upon delivery of the part to stores. As in the cases of material and labor, variations between actual and standard cost have not been permitted to enter the work in process account, but have been charged off to expense, and need be given no further consideration.

All deductions from in-process inventory are charged to finished goods inventory, using, of course, the same standard costs, but handling costs as a lump sum, including labor, material, and overhead, rather than keeping the three separate as in the case of in-process inventory.

Deductions from finished goods inventory are obtained from shipments, which are summarized monthly and costed out at standard, charging cost of sales and crediting the inventory account. Inasmuch as all variance from standard cost has been disposed of before merchandise enters finished goods inventory, there is none left to deal with at this point.

Summarizing, we carry forward a Profit and Loss Statement, showing variance due to:

1. Raw material purchase price.
2. Utilization of material in manufacturing.
3. Utilization of labor.
4. Under or Over-absorbing Burden.

In conclusion, and generally speaking, management has been much more ready to adopt new manufacturing methods, and replace obsolete equipment than they have to bring their cost procedure up-to-date. There has been a tendency to worry along with the old set-up until the system caved in with a bang.

Also, I want to emphasize our conviction that every installation presents special problems which should be analyzed and treated as such.

There are, to-day, too many instances where this fact has not been recognized, and installation made using a set of "forms." While we can all profit from the experience of others, we should not hesitate to depart from the "ritual" when the answer can be secured in a simpler nad more accurate manner.

Preparation of Certificate of British Empire Content

By

MR. J. E. CARRUTHERS,
Ford Motor Co. of Canada, Ltd., Windsor

An Address Before
Windsor Chapter, April 21st, 1938

Early in 1926, the Canadian Government reduced the tariff rate on automobiles from 35% to 20% on autos valued at retail at not more than $1,200.00, and 27½% when valued at retail at more than $1,200.00 (general tariff rates). Although the rates on the finished autos were drastically reduced—the rates on materials and parts entering into the cost of automobiles were not changed. This caused a situation wherein the rates of duty on the finished automobiles were less than the average rates on parts and materials.

To help correct this situation, a drawback of 25% of the regular duties paid was granted to the automobile manufacturer on all parts and materials incorporated into the finished product, also a further provision was made to admit free of entry fee a selected list of parts which, at that time, were determined to be of a class or kind not made in Canada. Later on, the 25% drawback was dropped and the list of "Free" items was increased.

These adjustments were conditional upon the finished automobile containing 50% Canadian content. The purpose of the Government at that time was to bring about a greater activity for the manufacture of auto parts in Canada, both by the automobile manufacturer and the auto parts manufacturers.

From 1926 up to the present time, there have been further tariff changes and also many regulations concerning what was meant by "Canadian content"—however, we will let history bury the past regulations—and concern ourselves with the current regulations and tariff.

The content has been increased from 50% Canadian to 65% British Empire content, and the duty rate on the finished automobile has still been further reduced till it is now 17½%—the lowest rate on autos in the history of Canada.

Because of the high British Empire content now required on passenger automobiles, the Canadian parts manufacturers are protected both

as regard to tariff and also the necessity of automobile manufacturers purchasing the maximum from Canadian parts makers.

When motor car manufacturers are called upon to comply with the tariff and governing regulations, which were instituted to benefit those industries in Canada who manufacture auto parts, it is necessary to have those Canadian suppliers compile "British Empire Certificates" to cover all those auto parts which they make.

It was felt that the reasons leading up to the request for Content Certificates should be sketched first so as to bring about a clearer understanding of the problems confronting both the auto manufacturer and the parts makers.

The regulations issued by the Canadian Government as being the formula for "British Empire Cost of Production" was dated July 10th, 1936, and is as follows:

> For the determination of the factory cost of production incurred in the British Empire of automobiles, motor trucks or chassis, within the meaning of Item 438c, provisos (1) and (2), Schedule "A" of the Customs Tariff, the following factors shall form the basis of computation—
>
> Empire cost consists of items designated (A).
>
> Non-Empire cost consists of items designated (B).
>
> Full factory cost of production is the total of (A) and (B) items.
>
> **Cost of Goods Imported by the Manufacturer.**
>
> (A) Cost (value for duty) of raw or semi-finished materials or parts and usual coverings thereof, of Empire origin, imported by the automobile manufacturer, either directly or indirectly, and the freight, cartage, insurance and other transit charges paid thereon.
>
> (B) Cost (value for duty of raw or semi-finished materials or parts and usual coverings thereof, of non-Empire origin, imported by the automobile manufacturer, either directly or indirectly, and freight, cartage, insurance and other transit charges incurred in transporting the goods to the frontier port of entry in Canada.
>
> (A) Freight, cartage, insurance and other transit charges incurred in transporting non-Empire goods from the frontier port in Canada to the factory of the automobile manufacturer or his supplier in Canada.
>
> **Cost of Goods Purchased by the Manufacturer from a Source of Supply in Canada.**
>
> (A) 1. When manufactured wholly from Empire material and by Canadian labor.
>
> (A) and (B) 2. When manufactured by Canadian labor from both Empire and non-Empire material the cost to the automobile manufacturer less—
>
> (B)—the non-Empire material cost (value for duty) and freight, cartage, insurance and other transit charges incurred in transporting the goods to the frontier port of entry in Canada—shall be considered Empire content.
>
> (A) 3. Goods purchased in Canada by the primary supplier

from a secondary source for further manufacture shall be dealt with as in (2), certificates from the secondary, tertiary and sources more remote, showing the non-Empire content, being accepted as evidence.

(A) Manufacturing wages.

(A) Factory burdens or overhead expenses; the factors which may be used as factory overhead expense are shown in a supplement annexed hereto.

(A) and (B). The cost to the manufacturer of inside containers and interior packing for parts ordinarily sold in such usual coverings with the automobile shall be (A) or (B), as the case may be. Tool and die charges incurred within the Empire shall constitute Empire content (A); tool and die charges originating outside the Empire shall constitute non-Empire content (B).

(B). Experimental or engineering expenses when incurred in a non-Empire country shall constitute non-Empire content (B).

(A) and (B). Administrative and general expenses which may be fairly allocated to the manufacturing operations in Canada, when incurred within the Empire, shall constitute Empire content (B), and when incurred in a non-Empire country shall constitute non-Empire content (B).

Note:

1. (A) Materials or goods of iron or steel may be considered as of 100% Empire origin if manufactured from pig iron produced in Canada or steel poured in Canada.

2. Certificates of Canadian sources of supply certifying as to the origin and values of crude rubber or raw cotton in tires, cotton fabrics, and other goods manufactured in Canada of which rubber and/or cotton is the component of chief value may be accepted, subject to verification when deemed necessary.

3. Customs duties and excise taxes, royalties, warranty, selling and advertising expenses, and any charges incurred subsequent to the manufacture of the automobile, motor vehicles or chassis, shall not be taken into account in calculating factory cost.

4. Re Empire and non-Empire content in materials or parts imported by the motor vehicle manufacturer or by primary, secondary or other Canadian sources of supply—a certificate on the invoice, or attached thereto, signed by a responsible official of the British or foreign source of supply, certifying as to the British Empire content in the goods covered thereby may be accepted. In the event that no such certificate is produced, goods covered by invoice forms "M.B.55 and "N.B.", duly certified, and goods shown as of British Empire origin on invoice forms "M.A." and "N.A.". duly certified, shall be taken as 50% Empire origin and 50% non-Empire origin.

5. The automobile, motor vehicle or chassis manufacturer, for the purpose of facilitating computation of cost of production, under proviso (1) or (2) of tariff item 438c, may, at the option of such manufacturer, consider the cost of any specified material or article, finished or semi-

finished, when purchased from a primary source of supply in the Empire, as of 100% non-Empire origin.

Factory Burden or Overhead Expense Formula.

The following factors shall be included:

Light.

Heat.

Power.

Water.

Workmen's compensation.

Fire insurance premiums.

Taxes on land and buildings in Canada.

Rent for factory premises.

Repairs to buildings.

Repairs to machinery and equipment.

Interest at the rate of 5% on capital outlay on land and buildings, and on depreciated value of machinery and equipment.

Depreciation, 10% on machinery and equipment of a permanent character, but not to include tools, dies, jigs and other similar non-permanent articles.

Experimental or engineering expenses when such expenses are actually incurred in the Empire.

Indirect and non-productive labor.

Manufacturing expense materials.

Miscellaneous factory expenses.

Note:

Insurance, rent, taxes, repairs, interest and other expenses, as above, on buildings for housing or storing motor vehicles after production and final inspection, or on idle buildings, plant, and equipment, are not to be included.

The regulations governing trucks is not repeated as the wording and intent is practically identical.

In order to obtain the information called for in these Order in Council—a special certificate has been practically universally adopted. This certificate was drawn up by the Department of National Revenue and the automotive industry. It has been in use now with hardly any change for the past four years.

This same certificate is also used to establish "British and Canadian" content to satisfy the requirements of the various British Empire countries to whom automobiles and parts are exported.

To prepare these content certificates it is necessary to bring forward costs broken down into the main items of cost.

1. **Direct Imports—Cost.**
   (a) Foreign imports.
   (b) British Empire imports.
2. **Value for Duty.**
   (a) Foreign imports.
   (b) British Empire imports.

3. **Duty and Taxes.**
4. **Indirect Imports.**
   These are the imported costs in parts purchased from Canadian suppliers and which are broken down in the same manner as items 1, 2 and 3.
6. **The balance** after taking all the above factors into account and
5. **Foreign Freight**—to Canadian frontier port of entry.
   applying to the selling price will represent the Canadian Material Labor Overhead and Profit.

Concerning item number six—a problem presents itself when there are two prices quoted—namely—an export price and a domestic price for an article. Where this occurs the domestic price is to be used for the purpose of establishing the Canadian content. This question has been raised frequently—however, it is quite obvious that as the domestic price has been established on the manufacturing cost, which includes the duties and taxes paid, the domestic price should be used. If the export price were used, too low a Canadian content would be obtained, as the duty and taxes would, in effect, be deducted twice.

Where an export price only exists, then to establish the proper Canadian content the duties and taxes referred to in item 3 should be disregarded—as the export price has already been set on manufacturing costs with the drawback deducted.

Referring to Exhibit A—Cost Record—this is the medium for collecting all cost data—the break-down in the costs is obtained from the certificate of British Empire content and the direct imports. The material costs are obtained from a tabulation of all purchases. The imports are picked up from detailed customs import entries and the Canadian purchases are picked up from the Canadian suppliers' invoices. When all necessary data has been completed this card will show the cost per 100 units and will be used ot cost the specifications.

Exhibit B is used to detail the specifications of parts and assemblies. These are primarily established by the engineers and are subsequently checked against the articles as they are made. When the specifications hav been verified they are then costed by referred to the unit costs per part already prepared on the Cost Record Card, referred to above as Exhibit A. All parts are given a number for ready identification.

There are several rulings which are interesting and necessary to know when preparing costs, i.e.: Steel—Materials or goods of iron or steel may be considered as of 100% Empire origin if manufactured from pig iron produced in Canada or steel poured in Canada. Waste—Waste or scrap may be considered 100% Canadian for Empire content purposes when "produced as such in Canada from Canadian manufacture. Tools and Dies—Charges for tools and dies, including the value of the material contained therein, purchased from the Canadian manufacturers may be regarded as Empire content.

Exceptions—The ruling relating to steel, and tools and dies, are applicable to the Canadian Government regulations only, but do not necessarily apply to all parts of the British Empire. Take in the case of

Australia: Cold rolled sheets and hot rolled strips, together with other items may be classed as 100% Canadian under special rulings—see reference appendix "D," Australian regulations, issued September 20th, 1937. Similarly, New Zealand has specific exceptions, see reference regulations, number 8, page 34, and list referred to on page 45 of regulations issued September 2nd, 1936.

The United Kingdom regulations are most severe, so that a study of their requirements should be carefully made. The latest regulations available are those issued under Notice No. 27-A in 1937, particularly paragraphs 6 to 12 inclusive.

The factory overhead plays an important part in determining what may be considered as Canadian. It would include 5% return on original capital expenditure of land and buildings and depreciated value of machinery and equipment, but would exclude depreciation on land and buildings.

Any expenses incurred subsequent to manufacture must also be deleted, such as packing and shipping expneses, also warranty. If overhead includes any sales tax on purchases of expense items, these should also be deducted. An analysis of the overhead should be made to determine the foreign content and will include such items as foreign, freight, tools, patterns, etc., portion of spoilage which is foreign—also any other items of expense which might be construed as being foreign.

Imports.

It will be observed that two values are called for, namely, the Invoice Price, also the Value for Duty. The Canadian regulations call for the values for duty, whereas other export territories only require the Invoice Price. The invoice price is also required for the purpose of determining the proper cost for the "Labor Overhead and Profit" column of the certificate. The reason for this is that the "Value for Duty" is not a cost item, but an artificial value established by the Government. If this amount were used instead of the actual importing value, the Canadian material, labor, overhead and profit items would be too low by the amount of the added amount necessary to make up the value for duty.

In the majority of cases the value for duty and the import cost is the same. There are some items, however, where the Department of National Revenue rule that the import cost values are not satisfactory, so these values are arbitrarily increased as a basis for the value to be used for payment of duties and taxes. This increase also reflects the added cost of exchange which occurs from time to time.

When dealing with foreign freight, it is well to see what is meant before setting up the necessary records. The regulations define this as "freight cartage, insurance and other transit charges incurred in transporting the goods to the frontier port of entry in Canada." From this it will be seen that the moment a shipment crosses the border into Canada the portion of the transportation charges incurred transporting the goods on Canadian territory may be considered as "Empire content." Only that portion of the transportation charges up to the port of entry into Canada, if incurred on foreign soil, is to be considered as an item of non-Empire content. This means of course, if British merchandise is imported into

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Canada on Brtiish boats through Canadian ports, the transportation charges from place of shipment to the Canadain plants can all be considered as "Empire content."

Occasionally some confusion arises in applying the "foreign transportation" charges to the certificate of content. If this item of cost is added to the non-Empire cost and not to the value for duty, the added value for duty amount is lost, therefore, in preparing the certificates the foreign freight should be added to both the foreign cost and the value for duty. Or, if it is preferred, the foreign transportation cost can be shown as a separate item of cost on the certificate so as not to interfere with the establishing of the extra value added for duty purposes.

When all transportation charges have been carefully broken down between "foreign" and "British Empire," the application of the foreign freight can be made through hte medium of a percentage to foreign materials or, if more convenient, as a direct cost item, but kept as a separate item of cost.

Attached are two exhibits:

A.—Cost Record Card.

B.—Cost Sheet.

which are offered as a suggestion as to how this information is gathered together.

When dealing with foreign importations, the duties and taxes must be kept as a separate item of cost so as to permit the proper content calculations being made in accordance with the existing regulations. These specify that all duties and taxes must be eliminated from costs before computing the percentage of content.

The one predominating factor that stands out is that the preparation of certificates is to determine "foreign content"—not only what is considered as a direct importation of the first supplier, but also the importations from other Canadian sources, and so on, until all the imports have been recorded. To accomplish this, each Canadian auto parts manufacturer is required to get certificates from his sources in the same manner as he furnishes certificates to the auto manufacturer. The Government regulationsd o not demand going back to secure the foreign materials from the original importer: they give you the option of considering all purchases not properly investigated, as 100% foreign content.

Materials as purchased should be averaged when more than one source is available, either several Canadian sources or a Canadian source and a foreign source. The certifictes as to content should be treated in a similar manner, so that the final certificate to the auto manufacturer will represent a weighted average figure. Sometimes imported materials are used specifically to take care of some export orders. In cases such as this two certificates should be made out, one for export, containing the imported materials and one for domestic trade, containing the Canadian purchases.

The preparation of British Empire certificates always present interesting and diversified problems. Everyone concerned in their preparation can find problems peculiar to their particular line of business. The foregoing information cannot be expected to cover all phases of this problem.

It is intended to merely outline the broad principles, and so bring about a closer understanding of the underlying basic problems.

The Canadian manufacturers benefit by the Government regulations, providing that 65% of the vehicles be made in Canada. To that end the "British Empire certificates" came into being. If at times the load seems particularly heavy and questions as to the necessity of these certificates arise, it is well to reflect the purpose served by them.

Human Aspects of Management

By

ALEX BRULE

Vice-President, National Committee of French Management

An Address Before

Seventh International Management Congress, Washington

"To be fully efficient, work done in the office or in the work-shop should be performed cheerfully and accepted freely by a team of co-workers reliant on the ability and equity of their chiefs."

LIEUT.-COLONEL RIMAILHO,
(Organisation a la francaise.)

The organisation of labor should have a double aim: securing the enterprises a maximum of efficiency, i.e., the best possible output, while respecting at the same time the personality of all the collaborators of the enterprises, whatever be their post and their function. It belongs to organization to put each one in his proper place: "cadres" and rank and file, skilled and unskilled, so that they may perform their task easily and feel proud of co-operating for the general result. This is possible, thanks to the progress of technology which tends to reduce human effort and hours of labor.

Facing this task, the worker must be convinced that the rules to which he must conform himself are aiming at a human and social goal. He must be proud and glad to play his part in this harmonious whole. This conscience of the work well done has always existed: when the visitor of our wonderful cathedrals examines them in detail he cannot fail to notice that while the whole appears to be faultless sculptures, and motives placed in inaccessible spots have been worked as finely as those which may always be seen by the passing crowd of the faithful.

But before trying to determine what should be the tendencies of the organization of labor considered from its human angle, it is of importance to answer some of the most common criticisms.

It has often been contended that organization creates unemployment and that under the pretext of alleviating the burden of men it condemns them to pauperism, even to death. A simple remark of a general character answers the charge: organization has always existed and its general principles are eternal. Should they lead to such disastrous results, the rules of labor organization would have been long dead.

Shall technological unemployment be held responsible? It is true that during the course of the last years the advance of technology has been tremendous. But organization is not technology. Organization selects the machine, integrates it within a whole, submits it to rules; but organization does not create the machine. Conversely it is well known that many inventors who have realized prodigies have completely failed to turn them to use industrially or commercially. The truth is that organization completes technology which it vivifies. Organization has always created and creates new jobs every day. Without quoting figures, let us only remark that, thanks to the new spirit of organization and the new methods devised, commercial and industrial accountancy, checking, preparation and distribution of labor, etc., underwent a complete change.

But more than reasonings and arguments more or less doubtful, the study of the variations of human masses will enable us to answer the charges brought against technology and organization. Let us examine, for instance, the variations of the white race in Europe. In 1800, there were in Europe 188,000,000 inhabitants. In 1930, 526,000,000. 130 years the population of Europe has increased by 338,000,000. And these figures do not take into account about 30 millions of Europeans who, since 1830, have emigrated and will never return.

Therefore, in a little more than a century, the European population has nearly trebled, in spite of the fact that the European continent contains vast spaces of barren lands and is deficient in many important raw materials without speaking of the too numerous wars that took place. And while the European population trebled, its means of subsistence increased proportionally. Does not this fact speak highly in favor of industrial development and organization of labor? Without them this human mass would have been condemned to starve or forced into wars of extermination. And the difficulties encountered by the organization of labor have been increased by the fact of the diminution of emigration. The average yearly figure fell to 300,000 from 1920 to 1928. It had reached 650,000 (1881-1899), and 1,400,000 until 1914.

Such results show how organization is necessary to the world. But it is still perfectible and its social consequences must be carefully examined.

When F. W. Taylor began to apply his methods, he did not overlook the social consequences of his findings. Tackling the problems of the distribution of the new riches created, he solved it in his own way, contending that one-third ought to go to the worker, one-third to the consumer and the rest to "the intellectual and financial funcion." When his services were required the acceptance of this formula was a sine qua non condition.

This method of distributing the profits was Taylor's aegis. Since, it has been often overlooked. When the directors and managers of an enterprise study its organization, they are often impressed by financial requirements or by treasury difficulties. When an "entrepreneur" requires the services of men specialized in "organization," they often boast of brilliant results obtained before. They often succeed in getting fine references from those who have already employed them, and it is not uncommon that the

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profits stated be somewhat exaggerated. In this case, of course, the co-workers of the enterprise will fail to derive the profit expected.

This question of the sharing of the profits by the collaborators must be understood in a broad sense. The head of the enterprise must not overlook the fact that his organization must look higher and further than the conditions of labor prevailing in his plant. His work will be really human if he succeeds in getting the free and loyal co-operation of all his employees and workers.

A first human progress has been realized in nearly all countries, when children's labor has been suppressed and women's labor carefully regulated. Men's hours of labor have been considerably reduced. Nearly everywhere, nowadays, when the weekly hours exceed 48, the overtime is paid at a higher rate. This is an undeniable improvement which must be considered as definitely established.

The problem of organization has many other aspects. In his book "Etudes sur le combat," Colonel Ardant du Picq wrote nearly a century ago: "Fighting is the final goal of armies, and man is the main instrument in the process of fighting. In an army, nothing can be wisely ordered (construction, organization, discipline, tactics—all things linked together like the fingers of the hand) without an accurate knowledge of this main instrument, man, and of his moral condition, when the time has come for him to fight)." Professional organizers have sometimes forgotten this truth which the great military chiefs have never overlooked: man is the basis of all works, and whatever be the improvements of technology or organization, the human element will always play his part. There is not such a thing as an industrial problem, or a commercial problem, or a military problem: there is a human problem. The rules are the same everywhere, in all times and in all places: if the goal is to be hit, men must be scientifically selceted; they must be physically trained for a given task. Man must be psychologically moved by a kind of mysticism which, let us hope, will be one day a mysticism of brotherhood, concord and peace.

It is of the utmost importance that the worker should be carefully selected. We find ourselves in presence of a new science which has accomplished much progress during the course of the last years. In France, the applications of the methods of "psychotechnique" and of "biotypology" enables the railway companies and the carriers in general to employ a choice personnel, thanks to which the percentage of accidents has been considerably reduced.

But these methods are just in the making: they must avoid the dangers which threaten all human undertakings in their first steps. Human personnal is moving and perfectible. At any period of his life man may, and must, correct his faults. Man must also improve his qualities.

The tests method gives extremely interesting results, but it should not be applied with a spirit of pride that could wreck it in a kind of industrial jansenism predestinating man from a child to a predetermined task.

These selection methods give generally interesting indications to the employer who should tell the employee his weak points in order to give him

a chance "to correct his fate," except of course when counter-indications are so clear that the task envisaged should be prohibited.

After having determined the worker's possibilities and guided his desires, organization should give him the means of performing his task easily —thanks to a complete knowledge of his function or of his craft. This result will be obtained, thanks to technical tuition. During the course of the last years, technical education has been the object of many researches. This important question deserves to be discussed at length, but it importunately exceeds the limits of this short study.

Let us say, however, that organization implies a good technical education as well as a strong general culture. Skilled labor should possess a good elementary education. The "cadres" are never enough cultured. The human and sosial problem becoming more and more complicated and the psychological aspects of organization more and more delicate, it is of the utmost importance that the organizers and members of the staffs should possess a good literary and philosophical foundation before beginning their technical studies.

Organization itself is now studied in nearly all civilized countries, in France especially. The Paris Chamber of Commerce has created the "Centre de Preparation aux Affaires" in friendly connection with the Graduate School of Business Administration, Harvard University. The object of this school is to train executives and managers.

But, on the other hand, the Comite National d'Organisation Francaise has opened another establishment which has met with a great success, with a view of training co-workers, i.e., collaborators of enterprises. His director, M. Maurice Ponthiere, sums up the principles of its program as folloms:

(a) Any enterprise, i.e., any human group devoted to the execution of a given task may be considered as a social organism.

(b) Workers should be considered as cells (nerve, muscular cells, etc.), constituting the tissues of the organism.

(c) The organs are all devoted to the service of the organism. Therefore all members—co-workers—of an enterprise are mere employees (from the financing men, the general manager, etc. . . . down to the last unskilled worker). Each one must fulfill its function and justify that he fulfills it. All functions must be defined.

(d) We know the means of measuring the various functions (time-keeping, quotas, analytical accountancy, costs, surplus, etc.). Any compensation (for physical or intellectual labor or for savings invested) should be fixed in function of these measurements.

(e) The health of the organism depends upon the health of each organ or of each individual cell. Therefore, it belongs to the organism to secure for everyone a perfect individual health: physical, intellectual, economic, etc.

(f) Organism tends to unity of conscience and unity of action. This unity of conception and realization is realized by the means of the specialization of the function of authority which is the psychical function of the enterprise: foresight, organization, command, co-ordination, control, etc.

This function does not imply other personal prerogatives than those necessary to the exercise of the function.

Men working in an enterprise should be interested by their task and by the social aspect of their work. This mystic part of work has been often neglected. Labor and its organization are a deed of wisdom and peace. It is not a struggle where the weaker must yield to the stronger. It is not an economic war with its doomed conquered, condemned to disappear.

During the course of the last years, organization has been too often limited to the enterprise. Its spirit was nothing more than the "team spirit," each one being more or less proud of having helped to the building of such a machine, to the sale of such a product. Or each one was more or less proud to belong to such a concern. This state of mind is apt to favor competition between the enterprises, competition with all its consequences: maximum of output with a minimum of expenses. By the way, let us simply mention methods representing particular and rather exceptional cases of organization: first class equipment and high wages policies or price-cutting and low wages policies. These methods are apt to lead to social troubles and to create unemployment.

Organization should try to do away with cut-throat competition. It is not an easy task on account of the power of the selfish motive helped and favored by technical development. This state of things may sometimes lead organization to enter a dangerous path by asking public authority to interfere (for instance, for prohibiting imports or forcing agreements).

But during the course of the last years we have seen that organization could realize a kind of international solidarity when it attempted to organize the great markets of raw materials: tin, rubber, etc.

There exists such a thing as a solidarity of human interests: sooner or later nations, as well as individuals, must partake of the evils suffered by the neighbour. Misery is not unilateral, and no one may boast of his happiness while there are somewhere in the world wretched and unfortunate beings.

Organization must tend to create a mysticism. We have already mentioned the fact that great military chiefs did not overlook this necessity: they all appealed to patriotic or religious feelings, or to the worst instincts and passion for conquest.

Unfortunately, an ideal organization of labor is difficult to realize, because of the fact that social problems are never enounced objectively. The study is obscured by selfish motives, class conflicts, political contentions, etc. All these difficulties will have to be surmounted.

Social problems ought to be studied strictly from the professional angle. Political factors should be discarded and eliminated. Great improvements have been already realized in this direction, from the standpoint of a more rational production and distribution of goods. Let us mention the good results of the institution in France of the "sursalaire familial," a reform due to the employer's initiative.

The problem of organizing labor is complicated also, because of the fact that there are generally three different classes of producers: 1°—the manufacturer who transforms raw materials into finished or semi-finished

products; 2°—the independent "artisan" who is not handicapped by heavy overhead expenses; 3°—the producer of raw materials.

All differences between important manufacturers and independent artisans should be adjusted. The elimination of the artisan would be an unfair solution of the problem.

If the profession could be organized rationally, all the resources of the "corporation" (in the French meaning of the word) could be pooled and it would be easy to develop the technical and general culture of the worker. A more rational utilization of his leisures could be realized. Of course the solutions of this problem will vary with the professions and the countries, but the independence of the worker should be respected and "paternalism" avoided. One cannot do anything in that direction without developing between men feelings of human brotherhood, of social solidarity. Excesses, of course, should be avoided. The patriotic feeling is certainly highly respectable, but one cannot expect much social progress in commonwealths where this feeling is overdeveloped.

It is of the utmost importance that marketing agreements should be made like those already arrived at for the production and distribution of steel, potash, etc.

Organization must tend to convince the worker that individual effort is necessary for the general welfare of the commonwealth. On the other hand, while it is admitted that the worker is entitled to reasonable leisures and has the "right to work," the lawfulness of profit and the necessity of authority should be accepted by all.

In a universe becoming every day more and more complicated, an organizing power creating social order is a necessity. What would become of the traffic in the thoroughfares of our big cities if it were not properly regulated? But organization should not overlook the fact that it deals with human beings and not with machines or robots; man should be trained to fully realize the nobleness and grandeur of his work.

The organization of labor is just beginning. It belongs to Organization to regulate production, distribution, consumption. Perhaps plenty will have to be limited to a certain extent, but unemployment and pauperism must disappear. Orgonization, being social, will have to humanize itself. We have all arrived at a tragic crossing and we must all make up our mind: we must choose between our destruction by the huge forces we have created ourselves, or our salvation through a life of dignity, effort and joy, where man will serve his fellow creature that God has created in His own image.

Burroughs

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    10.40
 6,712.70
     5.90
    40.67
     2.55
    30.00
     4.78
   350.00
    24.50
     1.45
     6.00
    30.65

 7,574.80 *
```

SAVES 60 OPERATIONS IN LISTING AND ADDING THESE 16 AMOUNTS

1. Because two or more keys, together with the motor bar, can be depressed simultaneously on the Short-Cut Keyboard, thus completely adding or subtracting the amount in one operation.

2. Because ciphers print automatically. There is no need for a cipher key on the Short-Cut Keyboard.

For example—the first amount ($10.45) was listed and added by depressing the "1" key, "4" key, "5" key and motor bar—*all in one single operation.* The cipher printed automatically.

Had each key and the motor bar been depressed separately—and had there been a cipher key to depress—it would have required 78 operations instead of 18 to list and add the 16 amounts shown on the above tape . . . thus, Burroughs saves 60 operations on this one typical job. The total is obtained in a single operation.

Accountants are finding the short-cut way of figuring both simple and practical. Naturally it results in greater sustained speed, because there's less to do. Naturally it is more accurate, because with fewer operations to perform there are fewer chances for error.

Let the Burroughs representative show you in your own office and on your own work what these savings can actually mean to you. Telephone the local Burroughs office. Or, if more convenient, write direct for free, illustrated, descriptive booklet.

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